BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPLICATION OF QUESTAR GAS COMPANY TO MAKE TARIFF MODIFICATIONS TO CHARGE TRANSPORTATION CUSTOMERS FOR PEAK HOUR SERVICES	Docket No. 17-057-09

REBUTTAL TESTIMONY OF MICHAEL L. PLATT

FOR DOMINION ENERGY UTAH

August 25, 2017

QGC Exhibit 3.0R

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Michael L. Platt. My business address 1140 West 200 South, Salt Lake City, UT 84104.

Q. By whom are you employed and what is your position?

A. I am employed by Dominion Energy Utah (Dominion Energy or Company) as the Manager of Engineering Systems. I am responsible for the System Planning and Analysis Group, Records Management and both High Pressure and IHP GIS teams. My qualifications are included in DEU Exhibit 3.1R.

Q. Attached to your written testimony are DEU Exhibits 3.1R through 3.5R. Were these prepared by you or under your direction?

A. Yes.

Q. What is the purpose of your testimony in this Docket?

A. The purpose of my testimony is to explain the peak hour needs on the Dominion Energy system. I will show that Dominion Energy needs to procure services to meet the peak-hour demand.

II. NEED FOR A PEAK HOUR SERVICE

Q. Mr. Lubow states on line 134 that the system is designed to meet the design peak day (as opposed to peak hour) and he cites DPU 1.11 as a reference. Do you agree?

A. No. Mr. Lubow omits portions of the referenced response and fails to mention that the Company designs its system to meet both design peak day and peak hour. As we indicated in the Company's response to DPU 1.11, "Either flow condition must be accounted for. A peak hour occurs every day at a volumetric rate that is related to the daily volume. The peak hour of the design peak day is the maximum volumetric flow rate. The system is designed using a dynamic model. Company personnel are available to show and explain

the model to interested parties." Dominion Energy's response to DPU 1.11 is attached as DEU Exhibit 3.2R.

Q. Mr. Lubow argues that the system is designed to meet a Peak Day (as opposed to peak hour) and historically it has always been that way. Do you agree?

A. No. Designing a system for peak day inherently includes designing to meet the peak hour. Dominion Energy has always designed its intermediate high pressure system for the peak hour.

Q. When did the Company begin modeling its high-pressure system for a peak hour?

A. In 2010, Dominion Energy began using an unsteady-state model for its high-pressure system. The unsteady-state model analyzes the peak day discretely, hour by hour. The steady-state model (which is all we used prior to 2010) is a "snapshot" of the average daily usage, not a "video" showing hourly fluctuations. The unsteady-state model enabled the Company to model hourly flows on its high pressure system.

Q. Why is it better to design a system based upon a peak hour rather than solely for a daily average?

A. The usage on Dominion Energy's system has grown at a larger rate than the system capacity. Designing for a peak day has always included designing for the peak hour of that peak day; if we fail to meet our customers' needs during the peak hour we have not met the peak-day requirements.

Q. How does the design peak hour compare to the design peak day?

A. The peak hour, as we refer to it, is the instant of the peak day model at which the flow apexes. A numeric comparison of the peak hour to the peak day will show that the peak hour volumetric rate of the peak day will always be higher than the average for the day, by

definition. In the 2017-18 peak day model, the peak-hour flow into the entire system is about 17% higher than the average over the day (which is the peak day).

Q. How confident are you that during a peak-day event the peak hour will be at least 17% higher than the peak-day flow?

A. Extremely confident, 92% confident to be exact.

I took a sample of nearly 1,000 data points, from August of 2010 to August of 2017 in order to determine the probability of the peak-hour volume flowing greater than 17% above the average. DEU Exhibit 3.3R shows the number of occurrences of each peak-hour flow rate along with the historical probability of peak hour occurring at or above 17%. As the graph shows, 92% of the time, the peak-hour flow has been 17% or greater than the average daily volume, on a historical basis.

Q. Mr. Lubow explains that based on his analysis, additional Peak-Hour Services are not necessary at this time. Can you provide evidence that this is not the case?

A. Yes. A review of the Company's unsteady-state models show that during the peak hours of a design day, the Dominion Energy system needs additional firm supply to meet demand or it will experience pressure losses which in turn are likely to cause system outages.

Q. Are there specific examples of customers that could not be served if Peak-Hour Services are not obtained this heating season?

A. Yes. For example, this year, a transportation customer requested an increase in their firm transportation contract, from 200 Dth/day to 1000 Dth/day. In the unsteady-state Peak-Day Design model the customer could not be served without Peak-Hour Services, as resulting peak-hour pressures were about 30 psig at their meter (the system minimum pressure is designed to be no less than 125 psig). When Peak-Hour Services are included, this customer may increase the firm contract as proposed with little impact to the system and

peak-hour pressures remain above the system minimum at the customer's location during the 2017-2018 heating season.

Q. Are there other transportation customers who rely on Firm-Peaking Services?

A. Yes.

Q. Do firm sales customers also rely on Firm-Peaking Service?

A. Yes. Many transportation and firm sales customers in numerous cities will lose service on a design peak day without Peak-Hour Service. DEU Exhibit 3.4R contains a list of transportation customers and regulator stations feeding cities that would fall below operational pressures on a peak day, if Peak-Hour Service is not available. Column A identifies the regulator station. Column B identifies the city or customer. Column C shows the minimum required operating pressure. Column D shows what pressures would be on a peak hour, if the Company did not have Peak-Hour Services. Column E shows what the pressures would be with Peak-Hour Services. Column F shows the pressure improvement with Peak-Hour Service. As you can see, without Peak-Hour Service these customers are at risk of losing service. With the addition of Peak-Hour Services, those same locations maintain pressures well above the operational minimums.

Q. Have you previously provided similar analyses that show loss of pressures, as you've described?

A. Yes. In the December 17, 2015 IRP workshop, I provided the results of our modelling. The model showed that during the morning hours, customer demand on the system is exceeding the firm supply being provided by the upstream pipelines, which causes pressures to drop. When the demand exceeds the supply for too long, pressures on the system drop below the minimum operating pressure of 125 psig.

Q. Why are there concerns when the pressures drop below 125 psig?

A. We expect to experience some level of appliance outages when the high pressure system reaches the minimum operational pressure of 125 psig. Many other variables affect the probability and severity of an outage. On a one-way-fed system, in which the regulator station feeding the community is near its design capacity, the system will experience outages when the regulator inlet pressures reach 125 psig. On a system like Salt Lake, during design peak-day conditions, if any regulator station inlet pressure reaches 125 psig, we expect to experience outages.

Q. Please describe DEU Exhibit 3.5R.

A. DEU Exhibit 3.5R shows the model results for the central and northern high pressure system. Pages 1 through 7 (which were presented in the December 2015 workshop) show that, during a design day, pressures drop below 125 psig when peak hour demands are not met by the supply. Page 1 shows pressures, reflected inside each dot, at 12:00 a.m. At that time, all locations have pressures well above the operational minimum. Page 2 shows how the pressures change at the same locations at 8:00 a.m. Twenty minutes later, as shown on page 3, the pressures have dropped further, and some locations have fallen below operational minimums. Page 4 shows that by 8:40 a.m., four locations have fallen below minimum operating pressures. Ten minutes later, as shown on page 5, pressures have dropped even further and Logan has fallen below minimum operating pressures. By 9:00 a.m., as shown on page 6, customers at all but three of the locations have or will be losing service. Ten minutes later, as shown on page 7, only two locations have pressure sufficient to maintain service.

Q. Can system demands be met with Peak-Hour Services?

A. Yes. Page 8 of DEU Exhibit 3.5R shows the central and northern systems on a design peak day, assuming the use of Peak-Hour Services. In addition, Exhibit 3.4R shows the

improvement in pressures provides operational pressures throughout the system. As you can see, with firm Peak-Hour Services, the system pressures are adequate to meet customer needs.

Q. Other parties have stated that this service is not necessary. If the Commission decides these services are not needed, what will the Company do to meet peak-day requirements?

A. If the Commission does not approve the recommended Peak-Hour Services, Dominion Energy will not have the resources to serve its customers on a firm basis and meet a design peak day. As a result, the Company will not be able to provide reliable service to its firm sales and transportation customers. The Peak-Hour Services that are required for this heating season total to approximately 340,375 Dth/day. In my professional opinion, failing to obtain these services puts the Company and its customers at risk.

III. LAKE SIDE

Q. Mr. Wheelwright states that your design day models assume that the Lake Side power plant will burn evenly through the day. Is this correct?

A. Yes. It is assumed that the firm demand for Lake Side is used evenly on a design day.

Q. Mr. Wheelwright suggests that this is an incorrect assumption because the historical Lake Side usage varies throughout the day. Do you agree that Lake Side's historical hourly usage should be considered when calculating the peak hour?

A. No. Lake Side has two inlets to the meter set, one from the connected system and another from the Saratoga Kern River Tap. The flow that is drawn from the connected system passes through a control valve that will be set to a constant flow on a design peak day. The inlet that is fed by the Saratoga Kern River Tap will account for any swings at the Lake

Side power plant. For these reasons, during the design day I have modeled Lake Side usage as flat.

Q. Did you exclude Lake Side usage when determining your 340,000 Dth/day of peak hour need?

A. Yes. It is assumed that their usage is flat.

Q. Does the Company have flow controlled meters on any other customers?

A. While there may be other customers who have control valves installed, Dominion Energy does not flow control other customers. That being said, if customers chose to be flow controlled, it would help our Gas Control manage the peak hour.

Q. Mr. Wheelwright points out that the Lake Side winter usage is considerably less than the full contract limit. Does Lake Side's actual usage have any influence on how the peak day and peak hour are calculated?

A. No. By purchasing a certain level of firm demand on the Dominion Energy system, customers may move that amount of contracted firm demand, on even the coldest day of the year, so long as the gas is scheduled and delivered to the Dominion Energy system. When planning for and designing our system, I must take this firm contracted amount into account, regardless of actual usage.

Q. Does this conclude your testimony?

A. Yes.

State of Utah)
) ss.
County of Salt Lake)

I, Mike Platt, being first duly sworn on oath, state that the answers in the foregoing written testimony are true and correct to the best of my knowledge, information and belief. Except as stated in the testimony, the exhibits attached to the testimony were prepared by me or under my direction and supervision, and they are true and correct to the best of my knowledge, information and belief. Any exhibits not prepared by me or under my direction and supervision are true and correct copies of the documents they purport to be.

_____
Mike Platt

SUBSCRIBED AND SWORN TO this _____ day of August, 2017.

_____
Notary Public